| Pushing the Envelope | | | |
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| **2009 Mathematics** | | | |
| **Content Standards** | | | |
| **Montana Mathematics** | | | |
| **Grades 5-8** | | | |
| **Activity/Lesson** | **State** | **Standards** | |
| Types of Engines ( pgs. 11-23) | MT | MA.5-8.3.4 | Measure and compute angles, perimeter, area, surface area, and volume including the use of formulas and choosing appropriate units. |
| Chemistry (pgs. 25-41) | MT | MA.5-8.3.4 | Measure and compute angles, perimeter, area, surface area, and volume including the use of formulas and choosing appropriate units. |
| Physics and Math (pgs. 43-63) | MT | MA.5-8.1.6 | Understand and apply proportional relationships to model real world situations and to solve problems involving rates, ratios, proportions, percents, and direct variation. |
| Physics and Math (pgs. 43-63) | MT | MA.5-8.3.4 | Measure and compute angles, perimeter, area, surface area, and volume including the use of formulas and choosing appropriate units. |
| Rocket Activity (pgs. 69-75) | MT | MA.5-8.3.4 | Measure and compute angles, perimeter, area, surface area, and volume including the use of formulas and choosing appropriate units. |
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| Pushing the Envelope | | | |
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| **2009 Mathematics** | | | |
| **Content Standards** | | | |
| **Montana Mathematics** | | | |
| **Grades 9-12** | | | |
| **Activity/Lesson** | **State** | **Standards** | |
| Physics and Math (pgs. 43-63) | MT | MA.9-12.1.5 | Identify givens and unknowns in familiar and unfamiliar situations (e.g., finance, culture, including Montana American Indians, and nature) and describe relationships between variables. |
| Physics and Math (pgs. 43-63) | MT | MA.9-12.4.1 | Represent functions in a variety of ways including tables, graphs or diagrams, verbal descriptions, and symbolic expressions in recursive and explicit form. Justify the choice of an appropriate form for solving a given problem. |
| Physics and Math (pgs. 43-63) | MT | MA.9-12.4.4 | Analyze the effects of transformations on families of functions and recognize their characteristics. Represent and use functions in equivalent forms to identify and perform transformations. |